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09/809,228	03/15/2001	Igor R. Vinogradov	873	5701

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EXAMINER

NGUYEN, KIMBERLY D

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 06/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/809,228

Applicant(s)

VINOGRADOV ET AL.

Examiner

Kimberly D. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 20 and 22-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 20 and 22-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Amendment

1. Receipt is acknowledged of Amendment filed 24 March 2003.

Claim Objections

2. Claim 23 is objected to because of the following informalities:
 - Claim 23, line 1: "said oblique angle" lacks of antecedent basis and should be changed to "a oblique angle".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 7-11, 13-18, 20, 22-27, 30, 32-37, 39-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Eastman et al. (US 4,603,262; hereinafter "Eastman" cited by Applicants).

Re claims 1, 11, 13, 18, 22, 24, 30, 32-33, 36-37: Eastman teaches an optical device for use in an optical system for reading an optical code (bar code in fig. 4), comprising a unitary body (housing 12 in fig. 1; col. 3, lines 1-16) of optical material having an aperture (58 in fig. 4) forming area and a beam phase modifying area (60, 62, 48) both receptive of light from a light source for a focus-free forming of a beam for reading the optical code (see figs. 1-3; col. 3, line 53 through col. 4, line 28), the unitary body 12 also having an integrated collection surface (32,

74 in figs. 4-6) for reflecting at least a portion of light returning from the optical code to a photodetector (66 in fig. 4; col. 2, lines 20-23; col. 4, lines 29-65).

Re claims 2-3, 25-26: Eastman teaches an optical device, wherein the aperture forming region (58 in fig. 1) comprises an outer region (the region containing aperture 58 in fig. 1) of an inner surface (surface containing brackets 86 in fig. 1) of the unitary body 12 and the beam phase modifying area (60, 62, 48 in figs. 1 and 4) comprises an inner region (region containing lens 60 in fig. 1) of the inner surface (surface containing brackets 86 in fig. 1) of the unitary body 12.

Re claims 4, 27: Eastman teaches an optical device, wherein the outer region of the outer surface (32, 74 in figs. 4-6) is a beam splitter (col. 4, lines 29-65).

Re claims 7-8, 16-17, 23: Eastman teaches an optical device, wherein the inner region of the outer surface (region containing lens 32 of fig. 1) of the unitary body 12 is substantially perpendicular (see fig. 4) to the beam for transmitting the beam and the outer region of the inner surface is at an oblique angle (74 fig. 4 having an angle relative to the beam) relative to the beam to form a beam splitting surface for reflecting a portion of return light (col. 5, line 60 through col. 6, line 2; col. 4, lines 29-65).

Re claims 9-10, 14-15, 20, 34-35, 39-41: Eastman teaches an optical device, wherein the unitary body further comprises a laser support region for supporting a laser source (42 in fig. 1; col. 2, lines 3-12; col. 4, line 66 through col. 5, line 26).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5-6, 28-29, 31, 38, 42-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eastman in view of Plesko (US 5,864,128; hereinafter "Plesko '128"). The teachings of Eastman have been discussed above.

Re claims 5-6, 28-29, 31, 38, 47-48: Eastman fails to teach or fairly suggest the inner region of the inner surface comprises a converging region for focusing a portion of the light to form the beam and the outer region of the inner surface comprises a diverging region for diverging a portion of the laser light away from the beam.

Plesko '128 teaches an optical system, wherein the inner region of the inner surface comprises a converging region (2 in fig. 6) for focusing a portion of the light to form the beam and the outer region of the inner surface comprises a diverging region (23 in fig. 6 is also an internal reflection surface as in claim 31) for diverging a portion of the laser light away from the beam (figs. 3 and 6; col. 4, line 54 through col. 5, line 2; col. 5, lines 37-48); and wherein the converging region is located concentrically within the diverging region (figs. 9-10; col. 6, lines 8-41).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the well known converging and diverging regions as taught by Plesko '128 to the teachings of Eastman in order to eliminate light which diverges from the light source from reaching the target (col. 4, line 64 through col. 5, line 2).

Re claim 42: Eastman fails to teach or fairly suggest the optical reader comprising a pen-shaped housing.

Plesko '128 teaches an optical reader, which comprises a pen-shaped housing (fig. 27a; col. 15, lines 34-57).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate a pen-shaped housing for an optical reader as taught by Plesko '128 to the teachings of Eastman in order to provide a portable/easy-to-carry reader (col. 15, lines 54-57).

Re claims 43-45: Eastman teaches an optical device, wherein the aperture forming region (58 in fig. 1) comprises an outer region (the region containing aperture 58 in fig. 1) of an inner surface (surface containing brackets 86 in fig. 1) of the unitary body 12 and the beam phase modifying area (60, 62, 48 in figs. 1 and 4) comprises an inner region (region containing lens 60 in fig. 1) of the inner surface (surface containing brackets 86 in fig. 1) of the unitary body 12.

Re claim 46: Eastman teaches an optical device, wherein the outer region of the outer surface (32, 74 in figs. 4-6) is a beam splitter (col. 4, lines 29-65).

Re claims 49-50: Eastman teaches an optical device, wherein outer region of the outer surface is arranged at an oblique angle relative to the beam (74 fig. 4 having an angle relative to the beam) relative to the beam to form a beam splitting surface for reflecting a portion of return light (col. 5, line 60 through col. 6, line 2; col. 4, lines 29-65).

Re claims 51-53: Eastman teaches an optical device, wherein the unitary body further comprises a laser support region for supporting a laser source (42 in fig. 1; col. 2, lines 3-12; col. 4, line 66 through col. 5, line 26).

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7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eastman in view of Coleman et al. (US 5,602,376; hereinafter "Coleman"). The teachings of Eastman have been discussed above.

Eastman fails to teach or fairly suggest the outer surface is a Brewster's angle beam splitter.

Coleman teaches an optical scanner system, wherein the outer surface/window 24 is a Brewster's tilted angled beam splitter (figs. 1-4; col. 2, lines 24-55; col. 4, lines 1-27).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the notoriously old and well known scanner with a Brewster's angled window as taught by Coleman to the teachings of Eastman in order to provide a tilted window to prevent the undesired reflection of light (i.e., scattered light) from passing to the scanned target.

8. Claims 54-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eastman in view of Plesko (US 5,933,288; hereinafter "Plesko '288"). The teachings of Eastman have been discussed above.

Re claim 54: Eastman teaches an wand reader for reading an optical code by projecting a focused beam of light at the optical code and collecting return light reflected from the optical code, the reader comprising:

a light source (56 in fig. 4) for emitting light energy;

a unitary body (housing 12 in fig. 1; col. 3, lines 1-16) for focusing the light energy into the focused light beam, the unitary body having an output surface (32, 74 in figs. 4-6)

perpendicular to the focused light beam through which the focused light beam can be transmitted toward the optical code (see figs. 1-3; col. 3, line 53 through col. 4, line 28);

a collector surface (32, 74 in figs. 4-6) positioned for directing at least a portion of the returning beam to a photodetector (66 in fig. 4; col. 2, lines 20-23; col. 4, lines 29-65); and

a detector (66 in fig. 4) for receiving a portion of the return light reflected from the optical code and producing an electrical signal corresponding to the intensity of the return light (col. 2, lines 20-23; col. 4, lines 29-65).

Eastman fails to teach or fairly suggest the light source, the unitary body and the detector are situated in an antenna for use with a wireless transceiver of a telephone or personal digital assistant.

Plesko '288 teaches an optical scanner, which is situated in an antenna 43 (figs. 2 and 7; col. 1, lines 28-26; col. 6, line 49 through col. 7, line 15).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the optical scanner which is situated in an antenna as taught by Plesko '288 to the teachings of Eastman in order to provide a wireless telecommunication to the scanner.

Re claims 55-57: Eastman teaches an optical device for use in an optical system for reading an optical code (bar code in fig. 4), comprising a unitary body (housing 12 in fig. 1; col. 3, lines 1-16) of optical material having an aperture (58 in fig. 4) forming area and a beam phase modifying area (60, 62, 48) both receptive of light from a light source for a focus-free forming of a beam for reading the optical code (see figs. 1-3; col. 3, line 53 through col. 4, line 28).

Re claim 58: Eastman teaches an optical device, wherein the outer region of the outer surface (32, 74 in figs. 4-6) is a beam splitter (col. 4, lines 29-65).

9. Claims 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eastman as modified by Plesko '288 as applied to claim 56 above, and further in view of Plesko '128. The teachings of Eastman as modified by Plesko '288 have been discussed above.

Eastman as modified by Plesko '288 fails to teach or fairly suggest the inner region of the inner surface comprises a converging region for focusing a portion of the light to form the beam and the outer region of the inner surface comprises a diverging region for diverging a portion of the laser light away from the beam.

Plesko '128 teaches an optical system, wherein the inner region of the inner surface comprises a converging region (2 in fig. 6) for focusing a portion of the light to form the beam and the outer region of the inner surface comprises a diverging region (23 in fig. 6 is also an internal reflection surface as in claim 31) for diverging a portion of the laser light away from the beam (figs. 3 and 6; col. 4, line 54 through col. 5, line 2; col. 5, lines 37-48); and wherein the converging region is located concentrically within the diverging region (figs. 9-10; col. 6, lines 8-41).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the well known converging and diverging regions as taught by Plesko '128 to the teachings of Eastman in order to eliminate light which diverges from the light source from reaching the target (col. 4, line 64 through col. 5, line 2).

Re claim 61: Eastman teaches an optical device, wherein outer region of the outer surface is arranged at an oblique angle relative to the beam (74 fig. 4 having an angle relative to the beam; col. 5, line 60 through col. 6, line 2; col. 4, lines 29-65).

Response to Arguments

10. Applicant's arguments with respect to claims 1-18, 20, and 22-61 have been considered but are moot in view of the new ground(s) of rejection.

In response to Applicants' argument "the unitary body also having an integrated collection surface for reflecting at least a portion of light returning from the optical code to a photodetector" (see page 7, lines 3-4); the examiner believes, giving its broadest interpretation, the combination of Eastman, Plesko '128 and Plesko '288 meet claim limitations as set forth in the claims.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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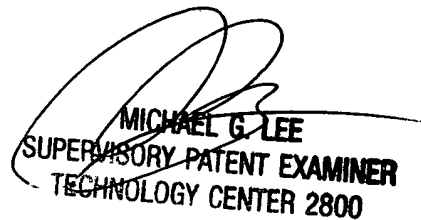
however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly D. Nguyen whose telephone number is 703-305-1798. The examiner can normally be reached on Monday-Friday 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-1341 for regular communications and 703-305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-8792.

KDN
June 3, 2003


MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800